



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,895	11/02/2001	Oleg Awsienko	884.660US1	7242
7590	12/28/2004		EXAMINER	
Schwegman, Lundberg, Woessner & Kluth, P.A. P.O. Box 2938 Minneapolis, MN 55402			MEHRA, INDER P	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,895

Applicant(s)

AWSIENKO ET AL.

Examiner

Inder P Mehra

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 14-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date <u>12/8/04</u> . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/15/04</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. This office action is in response to application filed 11/2/01.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-13, drawn to a multiple-domain processing system featured with intra-domain processing system, classified in class 370, subclass 400.
 - II. Claims 14-22, drawn to a multiple-domain processing system and at least one global switch to provide packet communication between a first local switch in said first processing domain and a second local switch in said second processing domain, classified in class 370, subclass 401.
 - III. Claims 23-30, drawn to a switch for use in a multi-dimensional switching fabric in a multi-domain processing system for routing operations, and a selection unit to select, based on information within a received packet, either the first packet routing information or the second packet routing information for use in routing the received packet, classified in class 370, subclass 389.
 - IV. Claims 31-41, drawn to a multiple-domain processing system featured with discovering domains in the multiple-domain processing system, from the system manager node, and assembling information relating to said discovered domains, said information relating to said discovered domains including information assembled while discovering end nodes, classified in class 370, subclass 254.

The inventions are distinct, each from the other because of the following reasons:

Art Unit: 2666

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II, III, and IV, restriction for examination purposes as indicated is proper.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
6. A telephone call was made to Attorney Chuck Steffey on December 8, 2004 to request an oral election to the above restriction requirement. Election of group 1 has been made on December 8, 2004, in a telephone interview.

Specification

7. The disclosure is objected to because of the following informalities:

Refer to page 3 line 16. What is "3GIO"?

Appropriate correction/clarification is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2666

9. Claims 14-22 and 31-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 14 recites the limitation "a first local switch" in line 10; and "a second local switch" in line 11. There is insufficient antecedent basis for this limitation in the claim. These limitations are preceded by antecedent basis in lines 3 and 7 respectively. Appropriate correction/clarification is required.

b. Claim 31 recites the limitation "said information" in lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-8 and 10-13 are rejected under 35 U.S.C. 102() as being anticipated by **Walker et al** (US Patent No. 6,701,375), hereinafter, Walker.

For claim 1, Walker discloses "a multiple-domain processing system", (three inter networks 10, 11, and 12, refer to figs. 1-3); comprising:

- a first processing domain having a first host processor and at least one first end node;
- a second processing domain having a second host processor and at least one second

Art Unit: 2666

end node; (routing messages or data packets from one node to another in a "locally" located intranet, refer to col. 1 lines 10-13); and

- a multi-dimensional switching fabric (physical structure of a switch or network, such as LANs are typically connected through switching nodes, refer to col. 1 lines 20- 24, and col. 4 lines 34-36) coupled to said first processing domain and said second processing domain to provide peer-to-peer packet communication within said processing system on multiple orthogonal planes, a first plane providing intra-domain packet communication and a second plane providing inter-domain packet communication, (refer to figs 1-3, abstract, col. 1 lines 10-20, 30-35, and 40-46; col. 2 lines 3-4, 50-55, col. 2 line 66 through col. 3 line 1.

For claims 2 and 3, Walker discloses, "wherein: said first host processor includes a tightly-coupled processor complex (common memory, refer to specs page 12); and wherein: said first and second processing domains are loosely-coupled (not common memory, specs page 12 lines 15-22), (maintains a list of nodes, which is memory required, refer to col. 7 lines 61- through col. 8 line 6).

For claim 4, Walker discloses, "wherein said multi-dimensional switching fabric includes at least one local switch associated with said first processing domain, at least one local switch associated with said second processing domain, and at least one global switch to provide packet communication between said first and second processing domains", (router 16A, 16B for

Art Unit: 2666

individual domain, gateway 16C is global switch for inter networks communication, refer to col. 7 lines 5-7.

For claim 5, Walker discloses, “wherein: said at least one local switch associated with said first processing domain includes local packet routing information and global packet routing information”, refer to fig. 1 and col. 1 lines 10-22.

For claims 6 and 7, Walker discloses, “wherein: said local packet routing information includes a local lookup table and said global packet routing information includes a global lookup table, as recited by claim 6, wherein: said local packet routing information includes memory map information and said global packet routing information includes a global lookup table as recited by claim 6, (“client list” maintained in this router, refer to col. 7 lines 18-20, and maintains a list of some of the nodes, col. 7 line 60 through col. 8 line 10. .

For claims 8, 10, and 12, Walker discloses, “wherein: said at least one local switch associated with said first processing domain selects, based on information within a received packet, either the local packet routing information or the global packet routing information for use in routing the received packet”, refer to col. 5 lines 40-55, and abstract, fig. 1, col. 4 lines 40-45, and col. 1 lines 52-67 .

Art Unit: 2666

For claim 11, wherein said at least one global switch includes global packet routing information for use in routing a received packet based on destination domain information within the received packet, refer to col. 1 lines 60-67.

For claim 13, Walker discloses, “wherein: said first host processor includes a packet generator to generate a packet for delivery to a destination node that includes information identifying a plane within the multi-dimensional switching fabric in which the packet is to be routed”, refer to col. 4 lines 44-46.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker, as in claim 1 above, in view of **Nabkel et al** (US Patent No. 6,674,725), hereinafter, Nabkel.

For claim 9, Walker discloses all the limitations of subject matter, with the exception of the limitation, “wherein: said information within said received packet includes a local/global flag”, which is disclosed by Nabkel (the establishment of global policies that inhibit or flag (i.e., set an alarm) the relaying of particular messages, refer to col. 20 lines 40-45).

It would have been obvious to a person of ordinary skill in art to combine the capability of packet including a local/global flag. This capability can be combined at the global switch as taught by Nabkel. The suggestion to do so is motivated to regulate traffic across multi-domains

Prior Art of Record

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

* Tiittanen et al (US Publication No. 2003/0103511) discloses auto configuration of control connections in an exchange.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra
Inder P Mehra
Examiner
Art Unit 2666



WASHINGTON
TELEPHONE